MAN'S EXPLOITATION OF THE GORILLA

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ABSTRACT

For hundreds of years the gorilla has been exploited and utilised by man in one form or another, its uses as a natural commodity ranging from raw protein to circus performer. Indigenous man in Africa has long hunted this near-relative, sometimes in reprisal for the destruction of his crops but more often simply for food, while so-called civilised man has hunted and slaughtered it in the name of sport and science. More recently, animal dealers have made fortunes by supplying living infant gorillas to zoos, laboratories and wealthy private owners, but the final trauma may well be one that the gorilla will not survive—the total destruction of its natural habitat in the never-ending quest for raw materials to supply the insatiable industrial nations—and only international intervention will save it.

INTRODUCTION

In common with many wild animals, the gorilla has a long history of persecution by man. Local tribes in its native Africa have little sympathy for this giant anthropoid, for life is hard for them and a dead adult gorilla provides a great deal of protein. Indeed, there is evidence of an inherent hatred for apes by indigenous tribes, while some have declared war on the gorilla, seemingly to use it as a substitute for a human enemy.

Cultured man has treated it little better, first building up an unassailable publicity campaign to project it as a monster, the original bogey-man of our childish fears, so that hunters could be declared heroes for destroying it. Then it became a curiosity in European and American menageries, often barely surviving for weeks in captivity, later a high-status pet, and finally an object of entertainment in the circus ring.

Biol. Conserv. (13) (1978)—© Applied Science Publishers Ltd, England, 1978
Printed in Great Britain

EXPLOITATION IN AFRICA

Throughout much of western-equatorial Africa the life of the western lowland gorilla (*Gorilla g. gorilla*) is motivated around those areas of forest that have been disturbed by man either in timber clearance or cultivation settlement. The same is true in many regions of the range of the eastern lowland gorilla (*G. g. graueri*) in Zaire, and only the isolated populations of eastern lowland gorillas in the Kayonza Forest in Uganda and the volcano gorilla (*G. g. beringei*) in the Virunga volcanoes are independent of man's influence on the biotope. In the secondary forests (a distinct vegetational type created by the forest reclaiming abandoned plantations), heliophytic plants flourish, particularly species of *Aframomum*, *Musanga*, *Vernonia*, *Costus* and *Trema*, which are found in abundance and provide the gorilla with its staple diet. Thus indigenous man in these parts of Africa plays an important part in the gorilla's survival as well as in its destruction and a close but paradoxical affinity has evolved between the two.

Timber clearance on a reasonable scale is not detrimental to the gorilla's survival and can even be beneficial, but the inevitable building of roads and influx of hunters, trappers and farmers that logging brings presents much greater dangers. Gorillas do not confine their foraging to abandoned plantations but also raid existing cultivations, to the annoyance of the owners. In Rio Muni gorillas were found even to invade the permanent plantations of *Coffea liberica* and *Theobroma cacao* (Jones & Sabater Pi, 1971). In the Ebolowa area of south-west Cameroon, Good (1947) found that the local farmers had constructed a gorilla 'scarecrow' in their field. The body was a rude effigy of a man made out of pieces of bark roughly tied together. A vine round the middle formed the waist and a hat was placed on the figure, which was then daubed with white clay from a stream. They had built a little roof over the figure and from a distance it had looked like a man sitting under his shelter and watching his garden. The effigy was rearranged and moved every few weeks or the gorillas would soon begin to ignore it. This was the only time that Good ever saw such a 'scarecrow'.

Sabater Pi (1977) has pointed out that many of the heliophytes consumed by gorillas are new foods to the apes. These plants are recent introductions by man (Rio Muni, Gabon and southern Cameroon) since 1920, a date that corresponds with the end of the 'great hunger' and the colonisation of the interior. Before this date, the Fang people of the interior of Gabon, south Cameroon and Rio Muni were principally nomadic, living precariously on hunting, fishing and gathering fruits. The rain-forest, too, is of great importance to gorillas in that it is a sanctuary in which they can hide from man and find resting places and nesting materials.

Aggressive interactions between humans and gorillas, with man usually being the aggressor, occur throughout the gorilla's entire distribution. In southern Nigeria, the northernmost limit of the western gorilla range and one where it is now probably extinct, March (1957) found them still present in the 1950s but records that they were

being 'chopped' by the natives. He was offered gorilla skulls in various villages surrounding the Boshi Forest Reserve. Over the border in West Cameroon (formerly the British Cameroons) gorillas were certainly hunted until 1960, when strict wildlife laws were enforced. In fact gorilla skulls can still be found in the homes of important people in the area, where they are regarded as a mark of prestige.

West Cameroon is something of an unknown quantity and the extent of the gorilla distribution uncertain, as there are speculations that the pongids may inhabit Korup in Ndian, Mboka in Manyu and Bakossi Korup in Meme, but these possibilities have yet to be explored. When he was in the Manyu district in 1976, James Powell Jr (pers. comm.) heard that gorillas inhabited the Assumbo hills, living in limestone caves, but Dr J. S. Gartlan believes that there may be some confusion of gorillas with drills as 'Assumbo' means 'drill' in the local dialect. Nevertheless, gorillas definitely live in these hills.

In Eastern Cameroon (former French Cameroons) gorillas are still frequently hunted by the tribesmen of the region in retaliation for plantation destruction and for food. Dr W. Gewalt, director of the Duisburg zoo, told me (pers. comm.) that he visited the country in 1975 and records that in all the small villages in the gorilla areas skulls of these animals could be found. More worrying are the forestry concessions in the vast areas in the south-east of the country around Lomie, Yokadouma, Abong-Mbang and Moloundou. When Dr A. Dixson was in Cameroon in 1974 he was informed by the Chief Forester of Moloundou that there were still many gorillas in that region but timber firms had already decided which areas would be exploited next. It seems likely the primary forest will all be destroyed; it is only a matter of time (A. Dixson, pers. comm.).

INDIGENOUS MAN VERSUS GORILLA

In most of its geographical range in Africa the gorilla is in competition with indigenous man, both for the utilisation of land and for disputed ownership of crops. Man, being basically a territorial animal, carves out small plots of land from the vast forest areas to cultivate and call his own, while gorillas, which are not strictly territorial, thrive on the herbs that flourish in them. Man is also an opportunist and not only hunts the gorillas for their temerity but also uses the flesh as a source of protein. In an enquiry into the diet of the Fang in Rio Muni (Sabater Pi & Groves, 1972) it was revealed that the most favoured parts of gorilla were the facial muscles, the palms and soles, and the tongue, which apparently correspond with the former much-sought-after portions of human flesh. The Fang were formerly cannibals.

It is interesting to discover from this enquiry that although the Fang of Rio Muni readily consume gorilla flesh, they will not touch the meat of the chimpanzee as they consider it to be 'almost human' and to eat it would therefore be a sin. Sabater Pi & Groves (1972) believe that this attitude was probably brought about by the later

teachings of missionaries against cannibalism but it is odd that the Fang should regard chimpanzees close to man but gorillas apparently not so. According to the Fang, cooked gorilla flesh has a delicious flavour and fatty nature, tasting of *Aframomum.*

Some of the other tribes that hunt the western gorilla are the Bulu and Mendjim Mey of south Cameroon, the Bengum, Mahongwe, Bachangui, Sameyes, and Eschira of Gabon, and the M'Betis of Congo-Brazzaville and Gabon. The nomadic Babinga, Babenzele and Bayele pygmies, who are found in various regions throughout western-equatorial Africa, are also known to hunt and kill the apes.

Blancou (1955) wrote that the relationship between gorillas and natives could be summed up in one word—fear! This fear, he said, was mutual and hereditary. To this could be added hatred. This emotion is blatantly displayed by natives on communal gorilla hunts, where the animals are netted, speared, clubbed and shot, and where some of the most appalling atrocities take place. Infant gorillas captured for trading or for live food are often ill-treated in such a way that an underlying hatred can be the only reasonable explanation for such abuse. That this hatred is reciprocated by the gorilla there can, I think, be little doubt. In the Kahuzi-Biega park the gorillas have become quite tame with Europeans, yet they still run away from Africans.

The Mendjim Mey of south-eastern Cameroon must be unique among the tribes that hunt gorillas for they are fearless of the big anthropoids, whom they consider as little more than unarmed bushmen. Merfield (1954) has graphically described the hunting of the animals by the Mendjim Mey who use spears and poisoned darts, and in his field notes (now in the Powell-Cotton Museum, Birchington, Kent), he amply illustrates the Mendjim Mey's fearless attitude to the gorilla. In this particular case a young Mendjim Mey man, aged about 24 years, was walking along a stream when he was followed by an adult male gorilla. The man simply hid behind a tree and speared the animal as it walked past.

The M'Betis tribesmen of Congo-Brazzaville have a relationship with gorillas that is rather more complex than the simple hunter-prey arrangement. Gorillas are to them an hereditary enemy on whom they have declared war. In fact, the whole daily life of the M'Betis is deeply interwoven with the giant primates and much time is spent on the preparation of weapons and in communal gorilla hunts. Fortunately the weapons are traditional and at least some of the gorillas manage to escape during these hunts. The whole affair is ritualised, with dances involving the beating of gorilla skulls with sticks to drive out evil spirits.

CAPTURING FOR ZOOS

From the 19th century onwards the gorilla has had to contend with Europeans as well as indigenous man. Soon after its scientific discovery in 1847, explorers, hunters

and collectors invaded its native haunts, the first serious onslaught starting with Du Chaillu and his single-shot firearms and progressing to hunters using modern weapons. Infant gorillas began to appear in early zoological collections and gradually this trade became big business until today a pair of baby gorillas fetches around £10,000. The big animal dealers stationed their agents in the gorilla regions, and these men were able to trade with the local hunters for live infants, which were later sold to zoos for vast profits.

In the early 1950s an American, Bill Said, started his own profitable gorilla-capturing business. His method of capture was simple. He would employ local people to locate and surround a family of gorillas with nets within an area of a kilometre across. The surrounding undergrowth would be cut away by the hunters, isolating the gorillas in a deep thicket within the nets. Yelling, banging drums and generally making as much noise as possible, the natives would frighten the gorillas and drive them towards one end of the thicket. More vegetation would be cleared and fresh nets spread to force the gorillas in an ever-decreasing space. Adults trying to find a way through the nets would be met by hunters and usually killed, and during the ensuing break made by the other gorillas, many would be killed or wounded. Those that took to the trees would either fall or the tree would be cut down, and once on the ground nets would be thrown over the animal, which could then be overpowered by sheer weight of numbers. In these hunts the infant gorillas would also often be injured. One male purchased from Said by the Columbus zoo suffered gunshot wounds in one arm and one leg. In addition to this it also had a severe upper respiratory infection, as had two others purchased from Said.

The areas in which Said operated were the former French Cameroon and the Mekambo region of Gabon. His first expedition took place in 1950, and these gorilla massacres did not end until he was killed in a car crash in Africa in 1953. The former Service de Chasse launched similar forays themselves and used the same methods as Said. Denis (1963) collected a total of 30 young gorillas during his stay with the M'Betis in Congo-Brazzaville in 1942, all of which died.

In recent years many of the gorillas sold to zoos came from Cameroon but restrictions on their exportation from this country were introduced after independence. A quota of 15 per year was allowed by law, but many more than this appeared to leave the country. Even more recently the quota has been said to be only 4 specimens each year (W. Gewalt, pers. comm.).

Most of the gorillas falling into the hands of animal dealers were captured by local people after hunts in which many of the animals were slaughtered. Use of the Cap-chur gun, which fires a dart containing a tranquilliser drug, has been severely limited. In 1968 Dr Lester Fisher (pers. comm.), director of the Lincoln Park zoo, spent two weeks in the Yaounde area of Cameroon teaching Robert Pouilloux to use the Cap-chur gun correctly and later M. Pouilloux successfully captured several young gorillas (some weighing over 27 kg) by the use of this technique. In Gabon in 1974, three Europeans were in Libreville waiting for confirmation to buy infant

gorillas for 40 dollars each (P. Jouventin, pers. comm.). Also in 1974 eleven of the animals were confiscated by the Gabonese government and handed over to the Primate Centre at Makokou on the understanding that none were exported from the country (A. Brosset, pers. comm.). At present the Centre keeps a small group of gorillas on an island in the river Ivindo.

PRESENT POSITION

Gabon has been described by a recent visitor to the country as a gigantic nature reserve. In spite of timber and mineral exploitation, much of the country is still dominated by the awesome rain-forests and gorillas probably still occur in those areas pinpointed by Malbrant & Maclatchy (1949). They described the apes as being in abundance in the upper Ikoy (Mimongo), the basin of the upper Rembo-N'Komi, around Sindara, the region of the lakes, the lower Nyanga, the zone between Lastoursville and Okondja, the Woleu-N'Tem plateau and the region between Booue and Makokou. They have also been found to be well in evidence in the north-eastern corner of the country, around Mekambo, Makokou, and particularly in the area of Belinga. In the south-west corner of Gabon gorillas are reported to be still plentiful around Mayumba, near the Congo–Brazzaville border (James Powell, Jr, pers. comm.).

Gabon has a low human population and possibly the biggest threat to the wild life is President Bongo's commitment to have a wide-gauge railway built through the middle of the country. Iron ore is being mined at Belinga by the American Bethlehem Steel Company and to get the ore to the coast a railway track is to be laid from Belinga to Booue and from there to Libreville on the coast. This will split the country wide open and pave the way for mass exploitation of the forests in the interior. The Gabonese government is also investing in tourism, although it is still very difficult to obtain a visa. The country is extremely expensive and the three or four safari operators cater only for the very wealthy. A licence can be purchased to shoot a gorilla.

In Cameroon, too, there is a tourism campaign, but safari operators do not include the rain-forests of the south. Gorilla populations are sadly depleted in the south-west of the country, principally through over-hunting and capturing. When Julie Webb did a survey of the Dja reserve in 1976 she found so few gorillas there that she was forced to base her studies of this animal in the Campo (J. S. Gartlan, pers. comm.). The apes, however, appear to be still in strength in the remote forests of the south-east, where the biggest threat seems to be from logging.

In Rio Muni (now Equatorial Guinea) the position is uncertain, but the outlook for the wildlife of the country is believed to be grim. Under Spanish rule the territory was estimated to contain 2000 gorillas, although a third of the country had been logged. A gorilla reserve, to be called the Parque de Monte Del Frio, was planned in

the N'Soc district in the south-east of the colony in 1964, but the project was abandoned. After independence in 1968 any conservation programmes for Rio Muni appear to have been successfully extinguished and a campaign undertaken to exploit the wildlife to capacity.

At present Congo-Brazzaville provides bright prospects for the gorillas living in the country. The human population is low, the interior difficult to negotiate, and the few roads are impassable for much of the year. There are many areas of forest that are inaccessible (including the Odzala National Park) and although there is a department of tourism in Brazzaville, there are no tourist facilities and no safari operators. The country is in a glorious state of nature, with gorillas and indigenous man retaining their relationship of hunter and hunted but only with the use of traditional weapons. While modern weapons are rigidly limited the delicate balance will be maintained.

To the west of Brazzaville gorillas are found in the areas around Sibiti, Komono, Dolisie and M'Vouti. When Dr A. Kortlandt was in the Dolisie–Kibangou road area mapping chimpanzee populations in 1965, he found that gorillas were rare in the forests west of the main road but still in abundance in the continuous forest area to the east (A. Kortlandt, pers. comm.). North-west of Brazzaville gorillas are reported at Zanaga, while directly north of the capital they are to be seen in the so-called gallery or riverine forests around the centres of Mossaka-Likouala, Ewo, Kelle, Boundji and Makoua, and much further north around Quesso, Imfondo and Dongou.

In the neighbouring country of the Central African Republic the apes are much rarer, remnant populations being possibly confined to the region west of the Sangha river. A. Kortlandt (pers. comm.) believes that some reports of gorillas in this country refer to chimpanzees.

The total wild population of *G. g. gorilla* is unknown and it is very unlikely that an accurate census will ever be achieved as the apes are spread in discontinuous populations throughout seven African states, with many of the areas being inaccessible.

EXPLOITATION OF *G. g. beringei* AND *G. g. graueri*

From the date when it was first scientifically discovered by Oscar von Beringe in 1902, the volcano gorilla underwent a comparatively short but extremely violent assault on its population. Hunters and collectors from Europe and America converged on the Virunga volcanoes, many with scientific permits from the Belgian government to kill and capture them. From the years 1902–1946 at least 61 gorillas have been killed and captured in the Virunga volcanoes and it is unlikely that this total is complete.

The creation of the Parc National Albert in the 1920s helped greatly to reduce the

number of gorillas collected in the volcanoes in the later years, but during the political turmoil of the 1960s the sanctuary went through a very troubled period and 23 unarmed protectors of the park were killed by poachers from Rwanda and Uganda. Today the Zaire side of the volcanoes is the best protected, although poachers have operated in the area, which is now called the National Park of Virunga. On the Rwanda side (the Volcanoes National Park) there have been violations. Land formerly belonging to the park has been appropriated by the Rwanda government for cattle grazing and for two pyrethrum projects. Proposals have urgently been advanced by certain European advisers to the Rwandese Agricultural Ministry for the establishment of a cattle breeding project in the Volcanoes National Park and the gorillas are continually being forced to the higher slopes of the volcanoes. To add to these grave violations of the park is the intrusion of the Tutsi pastoralists with their herds of cattle on the upper slopes of the volcanoes, where they have invaded the forests, clearings and even the alpine-moorland zones. The gorillas themselves have also been killed without apparent reason. On 18 October 1970, Group 10, one of Dian Fossey's gorilla groups under study, were found slaughtered on Mt Karisimbi. Even more serious is the diminishing number of infants in the gorilla groups living in Rwanda. The ratio of infants to juveniles and mature animals is now very small (D. Fossey, pers. comm.).

In 1971 Dian Fossey sent the skeletal remains of 15 gorillas from the Virunga volcanoes to the Smithsonian Institute in Washington. These animals had been found dead, killed by poachers in Zaire and Uganda and only one had met an apparently natural death.

Dian Fossey has counted a total of only 279 gorillas in the Rwanda park, and estimates a grand total of only 375–400 for the entire range. Already the gorillas on the Uganda side of the volcanoes have been so abused that it is more than possible that they have now vanished from this sector.

The population of gorillas in the Virunga Volcanoes as a whole has never appeared to be very great, and I cannot agree with the theory postulated by Groves (1970) that gorillas in general are high-altitude animals that originated from the mountains of Central Africa and migrated west with the spread of montane forest. If this is so then they are poorly adapted, as all gorillas suffer greatly from pulmonary infections. Also, if this were the case, it is odd that not all the Virunga range and none of the Ruwenzori range are utilised by gorillas.

Personally, I feel that the reverse is true, and that gorillas have colonised the volcanoes of Central Africa in relatively recent times, after being driven into the upper slopes through ruthless hunting and habitat destruction. The Virunga population appears to have colonised the volcanoes for quite some time as, among other adaptations, they have developed a heavy pelage and they are more hirsute than gorillas from any other region, but they are still susceptible to pulmonary infections. The Mt Kahuzi population, which has been described as *G. g. beringei*, but which are more likely to prove to be *G. g. graueri*, have not colonised the high-

altitudes to such a total extent and have probably only recently been driven into the high range. Their pelages are not so thick as those of the gorillas from the Virungas and they consequently suffer severe infections at cold altitudes.

G. g. graueri has a much larger population and distribution area than *G. g. beringei*, the primates being found in discontinuous pockets throughout a very large region of Zaire, and possibly in the Kayonza Forest in Uganda. In Zaire the geographical boundaries of its distribution have been mapped by A. Deschryver (pers. comm.): East-Lake Kivu; South-Fizi; West-Lobutu; and North-Bafwasende. In the past the subspecies has been a victim of European hunters, and probably more have been killed by civilians than by scientific collectors.

In 1957 the animal collector, Charles Cordier, trapped a whole family of eastern lowland gorillas near Bukavu for the International Scientific Foundation when they were making the film 'Lords of the Forest'. Later these gorillas were studied under semi-captive conditions by a team of biologists. After this spectacular capture, Cordier went on to make more successful trappings (all without killing the adults) and the latter years of the 1950s and the early 1960s saw a spate of *G. g. graueri* finding their way into various zoological collections. Antwerp received six; London two; Chester two; Hanover one; Bronx three; Oklahoma two; San Diego one; and Japan Monkey Centre two. Out of these nineteen specimens only six are alive today. In recent years very few, if any, eastern lowland gorillas have left Zaire as, in common with Congo-Brazzaville, the exportation of gorillas is forbidden by law.

The future of the wildlife of Zaire is probably much brighter now, under independent rule, than it ever was during Belgian occupation. The Belgians were responsible for the creation of only three national parks, but these had been increased to seven by 1970, and President Mobutu Sese Seko has promised more, some of which are to be strict natural reserves. Adrien Deschryver, who was principally responsible for the creation of the Kahuzi-Biega National Park, has official responsibility for all the gorillas in Zaire but he has no authority to post guards outside of the Kahuzi and Maiko reserves. A. Deschryver (pers. comm.) admits that gorillas outside of these protected areas are killed by local people for food and they usually try to sell the infants they capture. However, this offence is very seriously punished if discovered as all gorillas are protected by law in Zaire, but there are always those who will take the risk and hope that they will not get caught. Deschryver is attempting to increase the Kahuzi reserve to ten times its present size and to include the vast majority of gorillas in Zaire.

Little appears to be known about the future prospects of the isolated population of *G. g. graueri* in the Kayonza Forest. Dr B. Beck of the Brookfield zoo spent three days in the region in 1971, and found that although human habitation, agriculture and lumbering were visible, it was seemingly controlled so as to pose little threat to the forest. Dr Beck saw some areas where primary forest had been cleared to be replaced by fast-growing coniferous trees, but this had not been started in Kayonza. The region features very sharp terrain, with precipitous slopes and deep valleys.

There is only one road, which is narrow and winding, and these factors combined may prohibit large-scale lumbering. Poaching and livestock grazing appeared to be non-existent (B. Beck, pers. comm.).

EXPLOITATION IN EUROPE AND AMERICA

Owing to their relative rarity and high commercial value, gorillas, together with orang-utans, have been spared much of the laboratory experiments that have been the lot of the chimpanzee. Nevertheless, they have been exploited in practically every other way.

Literally hundreds of gorillas have died in zoos or in transit since they were first imported into Europe in about 1860, and later into America in 1897. At present there are well over 500 of these anthropoids in zoological collections all over the world, less than a fifth being captive-born. In spite of this, demands are still being made for youngsters from Africa, but the founding of the Washington convention in the trade of endangered animals should afford them some protection.

While there is little doubt that much progress has been made in the management of captive gorillas, a surprisingly large number of infants still die. In 1973 a large organisation imported six very young gorillas into the UK but all the animals succumbed within a matter of months.

CONCLUSIONS

It is to be hoped that the introduction of the Washington convention for the trade in endangered animals will terminate the exploitation of wild gorillas by zoos. The present captive population is large enough for it to become self-sustaining with good husbandry and international co-operation. Priority for conservation measures must be directed to the apes in their native Africa.

Although there are regions in Gabon and Congo-Brazzaville that still retain large areas of inaccessible rain-forests, there is no room for complacency. We live in an ever-changing world, and nowhere is this more true than in the politically newly emergent countries, where the people understandably expect a better standard of life under self-rule.

It is easy to condemn the developing countries for their exploitation of natural resources but they do not possess the long industrial history of the affluent West and rely entirely on raw materials for trade. The richer Western nations are in a position to make it more profitable for these countries to retain large areas of rain-forest untouched than it would be for them to clear it of timber. There is no reason why an international body or bodies like the IUCN, World Wildlife Fund and International Primate Protection League could not lease large tracts of rain-forests from countries

like Gabon, Cameroon and Congo-Brazzaville, and make it more profitable for these countries to leave the timber intact. Financial aid might also be given by the Geographic Society, CNRS, NIH, NIMH, National Science Foundation, National Research Council, New York Zoological Society, Frankfurt Zoological Society and other scientific foundations if research facilities were provided in the reserves. Scientific field stations could be set up for international use in research, and the areas on lease could be protected and guarded internationally. I can see no other way of ensuring the gorilla's survival.

ACKNOWLEDGEMENTS

Many people have contributed to this paper, and I would like to extend my grateful thanks to the following for data on wild gorillas: Dian Fossey, Ruhengeri, Rwanda; Adrian Deschryver, Kahuzi-Biega, Zaire; Dr W. Gewalt, Duisburg, W. Germany; James Powell, Jr, Texas, USA; Dr A. Kortlandt, Amsterdam, The Netherlands; Dr A. Dixson, London, UK; Dr L. Fisher, Chicago, USA; Dr P. Jouventin, Marseilles, France; Dr A. Brosset, Brunoy, France; and Dr J. S. Gartlan, Wisconsin, USA.

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